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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/766,295

01/27/2004

Guy E. Horne JR.

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05/16/2006

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EXAMINER

KASZTEJNA, MATTHEW JOHN

ART UNIT

PAPER NUMBER

3739

DATE MAILED: 05/16/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

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<b>Office Action Summary</b>	<b>Application No.</b> 10/766,295	<b>Applicant(s)</b> HORNE ET AL.	
	<b>Examiner</b> Matthew J. Kasztejna	<b>Art Unit</b> 3739	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 16 February 2006.  
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-15 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 1-15 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.  
10) ☒ The drawing(s) filed on 14 May 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Disposition of Claims***

In response to the amendment filed on February 16, 2006, amended claims 1, 8-9 and 13-14 are acknowledged. The USC § 112, 2<sup>nd</sup> paragraph rejection of claim 11 is *withdrawn*. The current rejections under 35 USC § 102 and 35 USC § 103(a) are *withdrawn*. The following new grounds of rejection are set forth:

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-8, 10-12 and 14-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,749,560 to Konstorum et al. in view of U.S. Patent No. 6,540,669 to Abe et al.

**In regard to claims 1-8, 10-12 and 14-15**, Konstorum et al. disclose an endoscope 10 having a shaft 14 comprised of a frame 26 and a cover 32 (see Figure 1). Frame 26 comprises a tube 40 that is preferably formed from a shape memory alloy material, such as Nitinol (see col. 3, lines 10-25). Tube 40 has slots 46 along at least part of its length where the pattern of slots can be varied and sections of slot patterns are provided, to vary the flexibility of the tube 40 (see col. 3, lines 29-51). The slots 46 provide the tube 40 with increased flexibility along the length of the first section 52 of the tube 40 (see col. 4, lines 1-5). Figure 3 shows that the slots 46 are positioned along a

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line parallel to the axis of the tube 40 and have an axis oriented at an angle to the axis of the tubular member, where the angle is in the range from zero to ninety degrees. Figure 3 also shows that the slots 46 are circumferentially positioned on the tube 40. Cover 32 is preferably comprised of a resilient plastic or polymer material (see col. 5, lines 7-8). Konstorum et al. are silent with respect to a sheath having three specific layers in addition to the tubular member. However, Konstorum et al. teaches that cover 32 could also include a structural reinforcement (see col. 5, lines 7-10). Abe et al. disclose an analogous endoscope having a flexible tube 1 with a sheath comprising a braided layer 22, a laminating layer 33 and a wear layer 34 and thus having three specific layers in addition to a tubular member 21 (see Fig. 5). Therefore, Abe et al. demonstrate that multi-layer tubular structures for endoscope are well known in the art. Accordingly, since Konstorum et al. disclose the use of structure reinforcement, it would have been obvious for one of ordinary skill in the art at the time the invention was made to provide the endoscope of Konstorum et al. with the multi-layer arrangement disclosed by Abe et al.

Claims 9 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,749,560 to Konstorum et al. in view of U.S. Patent No. 6,540,669 to Abe et al. in further view of U.S. Patent No. 4,899,787 to Ouchi et al.

**In regard to claims 9 and 13,** Konstorum et al. and Abe et al. disclose an endoscope having a sheath with specific layers (i.e. a barrier layer 32, a braided layer 22, a laminating layer 33 and a wear layer 34) in addition to the tubular member but are silent with respect to the barrier layer 32 being jacketed by the braided layer 22. Ouchi

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et al. teach of an analogous endoscope having a flexible tube with multi layers and wherein it is understood that the construction of the tube's layers is not limited to any particular order (see Col. 7, lines 1-10 and Fig. 4). Thus, Ouchi et al. demonstrate that varying the ordering of the various layers of a multi-layer endoscope is well known in the art. Accordingly, it would have been obvious to one skilled in the art at the time the invention was made to construct the flexible tube of Konstorum et al. and Abe et al. so that the barrier layer 32 is jacketed by the braided layer 22 in order to provide a flexible tube with varying flexibility characteristics as taught by Ouchi et al.

### ***Response to Arguments***

Applicant's arguments with respect to claims 1-15 have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

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the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Matthew J. Kasztejna whose telephone number is (571) 272-6086. The examiner can normally be reached on Mon-Fri, 8:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Linda C.M. Dvorak can be reached on (571) 272-4764. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

MJK

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SUPERVISORY PATENT EXAMINER  
GROUP 3700